A Socioeconomic Overview of the Santa Barbara and Ventura Counties as it Relates to Marine Related Industries and Activities

Originally Published, June 2000

A.1.

INTRODUCTION

Background

The CINMS is currently involved in a management plan revision, a process that is mandated to take place approximately every five years. Two major issues have emerged from public scoping meetings on the management plan revision; 1) Boundary Expansion and 2) Ecological or Marine Reserve(s) or "no take areas". Changes with respect to either of these issues was entail management actions and regulations that may have socioeconomic impacts on current and future user groups.

For the management plan revision, the CINMS organized a Sanctuary Advisory Council (SAC) made-up of various stakeholders. For the ecological or marine reserve (s), the CINMS organized a Marine Reserve Working Group (MRWG), also made-up of various stakeholders, that was develop alternatives and make a recommendation to the SAC and the CINMS with regard to establishment of marine reserves. A science panel and socioeconomics team have been established to advise the CINMS, SAC and MRWG for both the boundary expansion and marine reserve (s).

The socioeconomics team has hired three contractors who performed the data collection for the recreation industry and the commercial fishing industry to support the socioeconomic impact analysis of the marine reserves (s). The Socioeconomics Team is led by two NOAA economists, Dr. Vernon R. (Bob) Leeworthy and Peter C. Wiley. For the recreation industry, Dr. Charles Kolstad, Professor of Economics at the University of California-Santa Barbara, was contracted to collect information. For the commercial fisheries, two contractors were hired to collect information; Dr. Craig Barilotti of Sea Foam Enterprises in San Diego, California and Dr. Caroline Pomeroy of the University of California-Santa Cruz. Dr. Barilotti collected information from all commercial fishermen that fish in the CINMS, other than squid fishermen, and Dr. Pomeroy collected information from squid fishermen that fish the CINMS.

The information was collected to support the socioeconomic impact analysis of the marine reserve (s) is being collected and compiled in a manner so as to capture both the temporal and spatial variation in activities for the recreation industry and catch and value for the commercial fisheries. The information was placed in a geographical information system (GIS) using the ArcView software. The information from both the recreation industry and the commercial fishing industry was collected using a one square minute unit of resolution.

The information organized in the GIS are linked with economic parameters from existing studies and were used to develop estimates of economic impacts as measured by changes in both market economic values (e.g., sales/output, income and employment) and non market economic values (e.g., consumer's surplus and economic rents). Socioeconomic profiles of those potentially impacted were compared against all users from a given user group and against the general population of the local area (e.g., Santa Barbara and Ventura Counties).

To accomplish the above required a review of the existing literature and data bases available and compiling this information in a manner that it was used in the socioeconomic impact analyses.

Even though our focus here is on Santa Barbara and Ventura counties as the primary study areas for estimating economic impact, we have learned that some impacts was experienced in Los Angeles, Orange and San Diego counties. Impacts from kelp harvesting take place in San Diego County. A significant portion of the market squid catch is landed in San Pedro in Los Angeles County. And, we have also learned that several recreational fishing and diving operations operate out of Los Angeles County. So in our final analyses these impacts was have to be accounted for, however, they were not significant relative to the entire county economies for this county. They were important for our purposes of estimating the impacts on users, both direct and indirect.

A.2.

Purpose

The purpose of this document is to provide the necessary background information on the local social and economic (socioeconomic) environment for which changes in management actions in the Channel Islands National Marine Sanctuary (CINMS) were analyzed in this socioeconomic impact analysis. The information presented here is what we have found to date to be the "best available information".

For the issues of boundary expansion and marine reserves, three direct uses are potentially impacted; 1) tourist/recreational use, 2) commercial fishing (including kelp harvesting) and 3) offshore oil and gas. With respect to the local economies, each of these three uses will have ripple or multiplier effects as measured by market economic values (e.g., output/sales, income, employment and tax revenues). In this report, we attempt to review available information to assess how important these three industries are to the Santa Barbara and Ventura County economies. In addition, we present information on the currently known spatial distribution of recreational uses, and commercial fishing in the marine reserve study area. We also present what is known about social and economic parameters that are used in socioeconomic impact analyses for proposed management changes or regulatory changes in the two study areas.

Demographic and Economic Profile

Population. Historical population estimates presented here are from the U.S. Department of Commerce, Census Bureau (http://www.census.gov), while population projections are from the University of California-Santa Barbara, Economic Forecast Project. Ventura County has almost twice the population of Santa Barbara County and has been growing faster since 1980. Through the 1990s', Ventura County population has been growing faster than both the State of California and Santa Barbara County. Santa Barbara County has been growing slightly slower than the State of California. Santa Barbara County is projected to grow faster between 1998-2002 than Ventura County (7.8% vs. 6.0%), but then slower between 2002-2006 (3.1% vs. 5.8%). See Table 1.

Although, Ventura County's population is larger and has been growing faster than Santa Barbara's, the relative compositions of both populations are quite similar in terms of gender, race/ethnicity and age and, both counties are projected to change in the same general directions. For the 1990s', there appear to be no significant differences with regard to gender or race/ethnicity between Santa Barbara and Ventura Counties. However, there does appear to be a difference in age distributions. Santa Barbara appears to be a little older with a higher percent of population age 65 or older indicating a larger retirement community. For the projection periods, the most significant change expected is the proportion of population that was Latino. The populations of both counties are expected to become more Latino and less White, Not Latino, while the Black, Not Latino and Asian, Not Latino remain at approximately constant proportions. The projected proportions of retirement age populations are expected to remain constant in Santa Barbara County, while increasing slightly in Ventura County. See Table 2.

A.3.

Table 1. Population, Population Growth and Projected Growth for California, Santa Barbara and Ventura Counties

	California	Santa Barbara County	Ventura County
Population			
1990	29,950,100	370,900	671,600
1994	31,317,200	386,700	703,700
1998	32,682,800	389,500	732,100
Population Growth (%)			
1980-1990	25.7	23.7	26.4
1990-1994	4.6	4.3	4.8
1994-1998	4.4	0.7	4.0
1990-1999	11.2	5.8	11.4
Population Projections			
2002	n/a	419,800	776,000
2006	n/a	433,000	821,200
Population Projection Growth			
1998-2002	n/a	7.8	6.0
2002-2006	n/a	3.1	5.8

Sources: Population; U.S. Department of Commerce, Census Bureau (http://www.census.gov).
Population Projections; University of California-Santa Barbara, Economic Forecast Project, 1999 Economic Outlook Santa Barbara and Ventura Counties.

A.4.

Table 2. Demographic Profiles of Santa Barbara and Ventura County Populations

Santa Barbara County					
0	1990	1994	1998	2002	2006
Gender	50.0	54.0	F0 F	50.0	F0.0
Male	50.2	51.2	50.5	50.6	50.6
Female	49.8	48.8	49.5	49.4	49.4
Ethnicity					
White	66.2	63.7	63.1	62.1	60.7
Black	2.5	2.5	2.7	2.8	2.9
Asian	4.7	4.6	4.7	4.7	4.8
Latino	26.6	27.6	29.5	30.4	31.4
Age					
Less than 5	7.5	7.8	7.5	6.9	6.9
5 to 19	20.2	19.4	20.0	20.6	20.4
20 to 34	28.6	26.8	24.1	21.2	18.9
35 to 44	14.4	15.7	16.3	17.0	17.3
45 to 54	9.2	10.4	12.0	13.4	14.4
55 to 64	7.8	7.5	7.7	8.5	9.7
65 to 74	6.9	6.8	6.4	6.1	6.1
75 and Over	5.4	5.6	6.0	6.2	6.2
Ventura County					
Gender					
Male	50.4	50.5	50.5	50.6	50.6
Female	49.6	49.5	49.5	49.4	49.4
Ethnicity					
White	66.0	64.4	62.7	61.1	59.4
Black	2.2	2.2	2.1	2.3	2.3
Asian	5.4	5.4	5.5	5.6	5.9
Latino	26.4	28.0	29.7	31.0	32.4
Age					
Less than 5	8.3	8.3	7.9	7.4	7.4
5 to 19	22.4	22.1	22.2	22.1	21.4
20 to 34	25.7	23.2	21.2	20.2	19.8
35 to 44	16.3	16.7	16.3	15.3	13.9
45 to 54	10.6	12.3	13.6	14.4	14.6
55 to 64	7.3	7.7	8.6	10.0	11.3
65 to 74	5.5	5.7	5.8	6.2	6.9
75 and Over	3.8	4.1	4.3	4.5	4.7

Source: University of California – Santa Barbara, Economic Forecast Project, 1999 Economic Outlook Santa Barbara and Ventura Counties.

A.5.

Labor Force. As with population, the labor force of Ventura County is almost twice that of Santa Barbara County. Unlike population, however, the labor force of both counties have followed different growth patterns than that of the State of California. In the early 1990s', both counties labor forces grew faster than that of the State of California. However, from 1994-1998, labor force growth came to almost a halt in both counties, actually declining in Santa Barbara. As with population, Ventura County's labor force grew faster than Santa Barbara County's from 1990 to 1998 (6.8% vs. 3.7%). Labor forces in both counties are projected to grow relatively fast between 1998-2002, but, as with population, both are expected to slow over the 2002-2006 period, more in line with projected population growths. Labor Force composition was not available on a time series basis, nor were there projections available. However, comparing 1990 labor forces in both counties, there were no significant differences between the counties and the patterns generally matched those of populations for the two counties. Although, as we shall discuss below, there is a difference between those that work in a county and those that live in a county. And, this was have important implications for assessing socioeconomic impacts.

Table 3. Labor Force, Labor Force Growth and Projected Labor Growth for California, Santa Barbara and Ventura Counties

California Santa Barbara Ventura Labor Force 1990 193,000 370,400 15,193,400 1994 15,450,000 196,900 385,300 1998 16,323,900 195,700 387,700 Labor Force Growth (%) 1990-1994 1.7 2.0 4.0 1994-1998 5.7 -0.6 0.6 1990-1999 9.2 3.7 6.8 **Labor Force Projections** 2002 n/a 208,900 412,900 2006 436,800 216,100 n/a Labor Force Projection Growth 1998-2002 6.7 6.5 n/a 2002-2006 n/a 3.4 5.8 Labor Force 1990 Gender Male 56.0 55.4 56.7 43.3 Female 44.0 44.6 Ethnicity White 60.3 67.8 68.2 Black 6.2 2.2 2.1 24.3 Hispanic 23.6 25.2 0.5 Native American 0.6 0.8 4.9 Asian/Pacific Islander 9.0 3.9 Other 0.1 0.1 0.1

A.6.

Employment and Income. In conducting economic impact analyses, an important first step is defining the study area. In developing regional economic impact models it is important to understand the interrelationships between surrounding areas. The county political unit and metropolitan statistical areas (MSAs) are used to organize statistical information about employment and income. MSAs attempt to define areas that cross political boundaries but are economically closely linked because of numerous interrelationships. There is no Santa Barbara-Ventura County MSA indicating that these two counties are not highly linked economically. The only MSA in the two-county area exists within Santa Barbara County, e.g., Santa Barbara-Lompoc-Santa Maria MSA. Therefore, we only report Santa Barbara County and Ventura County information here.

Income is reported from two perspectives; 1) income by place of residence and 2) income by place of work. Income and employment by place of work are further reported by industry. Income and employment by place of work is also reported for wage and salary workers versus proprietors (business owners). Differences in these measurements often reveal important differences about the nature of the local economies that are important for socioeconomic impact analyses. For example, a large difference between income by place of residence and income by place of work might reveal that the economy of the area under study is largely driven by income earned from sources unrelated to work in the area and this was dampen the impacts of management changes that impact local work related income and employment. A large number of proprietors indicate the prevalence of small businesses which receive special treatment under Federal Regulatory Impact Reviews.

Income by Place of Residence versus Income by Place of Work. In 1990, Santa Barbara County's income by place of work was only 48.8% of the income by place of residence. This was much higher than the 36.2% for the State of California, but much lower than the 76.0% for Ventura County. From 1990 to 1997, the proportion of income by place of work rose for Santa Barbara County (from 48.8% to 59.6%), but declined for Ventura County (from 76.0% to 72.1%). Santa Barbara County is driven much more by forces unrelated to work in the county than Ventura County.

Table 4. Personal Income by Place of Residence and by Place of Work For California, Santa Barbara and Ventura Counties

	Income by Place of Residence (000's \$)	Income by Place of Work (000's \$)	Work as % of Residence
1990			
California	639,297,540	469,355,580	36.2
Santa Barbara	8,282,659	5,567,203	48.8
Ventura	14,744,992	8,378,763	76.0
1994			
California	718,321,442	517,993,813	38.7
Santa Barbara	9,311,405	5,887,111	58.2
Ventura	16,557,595	9,799,145	69.0
1997			
California	846,838,798	607,976,152	39.3
Santa Barbara	10,760,412	6,743,656	59.6
Ventura	19,173,001	11,138,553	72.1

A.7.

There are several sources of income unrelated to work in a county that are recorded and they are generally referred to as transfer payments and property income. Social security and pensions are two of the most important transfer payments and dividends, interest and rent are the most important sources of property income. Social Security and Medicare deductions from current workers are recorded as a deduction in income by place of work in deriving income by place of residence. The other difference between income by place of work and residence is called the residence adjustment. The residence adjustment is the net flow of income to a county that results from some residents that work outside the county of residence and bring income into the county (inflow of income) versus residents from other counties that work inside the county but take their incomes home to their counties of residence (outflow of income).

In 1990, Santa Barbara had a net outflow of income or a residence adjustment of about -\$131 million. By 1997 this figure had grown to almost -\$150 million. Ventura County, however, has a net inflow of income based on the residence adjustment. In 1990, the Ventura County residence adjustment was about \$2.95 billion and by 1997 rose to over \$3 billion.

The Census of Intercounty Commuters for 1990 reveals the nature of the above net flows (see Appendix Table 1). The 1990 Census of Intercounty Commuters shows that Santa Barbara County had a net inflow of workers into the county of 4,397. There were 10,236 residents of Santa Barbara County that commuted to work outside the county and there were 14,633 non-residents that worked inside the county. This net flow of workers into the county results in a net outflow of income from the county as non-resident workers take their earned incomes home to their counties of residence.

In 1990, Ventura County had a net outflow of workers of –55,392. There were 84,838 residents that commuted to work outside the county and 29,446 non-residents that worked inside the county. The net outflow of workers resulted in a net inflow of income as residents that worked outside the county brought their incomes home to Ventura County. Los Angeles County accounted for the overwhelming majority of residents that commute to work outside the county (92.5%). Los Angeles and Ventura counties are highly connected with 23,635 of the 26,354 (or 89.7%) non residents that work inside Ventura County coming from Los Angeles County.

Ventura County and Santa Barbara County are not highly connected. Relatively small proportions of both counties work forces live in the neighboring county. In 1990, only 2,433 residents of Santa Barbara County commuted to work in Ventura County and only 5,594 Ventura County residents commuted to work to Santa Barbara County. Ventura County residents only made up only about 3% of all Santa Barbara County workers and Santa Barbara County residents made up less than one percent (0.8%) of all Ventura County workers.

Proprietors. Proprietors account for a significant proportion of both income and employment in both Santa Barbara and Ventura counties. In 1990, proprietors accounted for 18.7% of income and 20.2% of employment in Santa Barbara County and 15.65% of income and 19.9% of employment in Ventura County. In the 1990s, the relative importance of proprietors in both counties increased. In 1997, proprietors accounted for 19.1% of the income and 22.3% of the employment in Santa Barbara County and 16.8% of the income and 23.1% of the employment in Ventura County. These proportions were relatively higher than that for the entire State of California. This is a fairly good indicator that small businesses are very important in both counties. See Table 5.

A.8.

Table 5. Proprietors Income and Employment for California, Santa Barbara and Ventura Counties

	Proprietors		Proprietors	
	Income (000's \$)	%	Employment	%
1990				
California	60,048,930	12.8	2,908,845	17.2
Santa Barbara	1,041,631	18.7	43,583	20.2
Ventura	1,307,970	15.6	65,577	19.9
1994				
California	73,643,501	14.2	3,287,440	19.6
Santa Barbara	1,100,644	18.7	47,273	21.7
Ventura	1,668,389	17.0	77,455	22.2
1997				
California	86,155,451	14.2	3,608,489	20.0
Santa Barbara	1,289,111	19.1	51,809	22.3
Ventura	1,870,996	16.8	83,690	23.1

Indicators of Economic Health and Wealth. Unemployment rates and per capita incomes are probably the two most popular measures used as indicators of the health and wealth of communities, states or nations. Through the 1990s both unemployment and real per capita income (per capita income in 1999 \$ i.e., adjusted for inflation using the Consumer Price Index) moved in the same directions in both Santa Barbara and Ventura counties. Throughout the 1990s unemployment rates in Santa Barbara and Ventura counties were lower than that for the entire State of California. Santa Barbara's unemployment rate has always been below that of Ventura County and, except for 1994, Santa Barbara's unemployment rate was lower than that for the entire U.S. Ventura County's unemployment rate has remained somewhere between that for the entire State of California and the U.S.

Real per capita incomes in Santa Barbara and Ventura counties were higher than that for the entire State of California and for the U.S throughout the 1990s. Santa Barbara's real per capita income is slightly higher than Ventura County's and has grown faster than Ventura County's. In 1990, real per capita income was 1.6% higher in Santa Barbara County than in Ventura County, by 1998 Santa Barbara County's real per capita income was 3.5% higher than Ventura County's. This is largely explained by a higher proportion of Santa Barbara County's income coming from dividends and interests from investments. The 1990s were are relatively good time for return on investments in stocks.

Other comparisons between the two counties reveal another source of the difference in real per capita incomes between the two counties. Average Earnings Per Job and Average Wage & Salaries reveal that real average earnings per job and real average wages & salaries declined in Santa Barbara County from 1990 to 1997, while in Ventura County there was a more mixed result. From 1990-1997, real average earnings per job decreased, while real average wage & salaries increased. In addition, real average nonfarm proprietor's income increased in Ventura County, while declining in Santa Barbara County (see Appendix Table A.2). Again we see from these patterns that Santa Barbara County incomes are much more dependent on sources not related to work in the county than in Ventura County.

A.9.

Table 6. Unemployment Rates and Per Capita Incomes for U.S., California, Santa Barbara And Ventura Counties

	U.S.	California	Santa Barbara County	Ventura County
Unemployment (%)				
1990	5.6	5.8	4.9	5.7
1994	5.6	8.6	7.2	7.8
1998	4.5	5.9	4.4	5.6
1999	4.2	5.2	3.9	4.8
Per Capita Income (\$)				
1990	19,156	21,363	22,361	22,002
1994	22,056	22,953	24,406	23,690
1997	25,288	26,314	27,839	26,563
1998	26,482	27,579	28,678	27,699
Per Capita Income (1999 \$)				
1990	24,328	27,131	28,398	27,943
1994	24,703	25,707	27,335	26,533
1997	26,300	27,367	28,953	27,626
1998	27,012	28,131	29,252	28,253

For Santa Barbara County, the disparity between the trends in real per capita income and measures of income from work in the county reveal a pattern often cited about the distribution of income and wealth becoming more concentrated amongst higher income groups. Neither workers nor proprietors in Santa Barbara shared the gains in income and wealth indicated by the increase in real per capita income through the 1990s. Workers and proprietors have faired relatively better in Ventura County. On average, workers now earn more in Ventura County than in Santa Barbara County. Although, the trend for the average real earning of proprietors is on the decline in Santa Barbara County and increasing in Ventura County, Ventura County proprietors still earn, on average, significantly less than Santa Barbara County proprietors.

Income and Employment by Industry. For purposes of economic impact analyses, in terms of income and employment impacts, income and employment by industry is critical because it provides the necessary control totals in the economic accounting system. A limitation of this accounting system is that it is still based on the old industrial economy and generally is not designed to yield direct insights into how the use of natural resources and the environment are connected to the economy. Linking the economy and the environment is the very heart of the Socioeconomic Team's task. We need to be able to answer the question, if the use of the natural resources of the CINMS is changed, what was the impact on the income and employment in the local economies? To answer this question requires supplemental information organized so that it maps directly into the current system of accounting. In some cases, the income and employment by industry statistics can give us upper bound estimates of the direct portion of impact (i.e., not counting multiplier impacts) for particular uses. Our approach here is to first look at the most aggregated information, then proceed to evaluate information collected by other institutions and how it maps into the more aggregated statistics. Each step along the way our objective is to see how close we can get to linking the economy with the environment and assessing the relative importance to the economy of natural resource base uses.

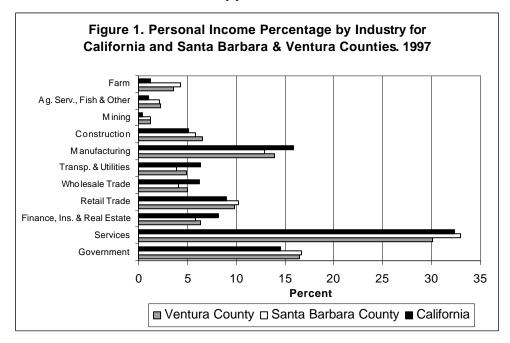
A.10.

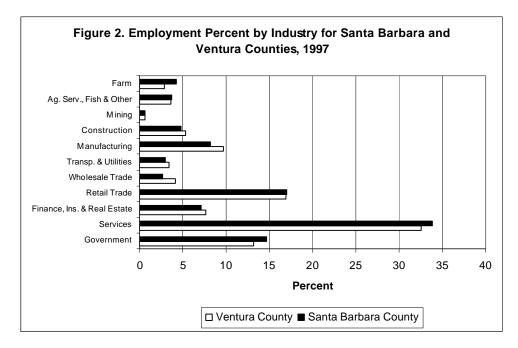
Figures 1 and 2 show the percentages of income and employment by industry to Santa Barbara and Ventura counties (see Appendix Tables A.3 and A.4 for more details and comparisons for different years). At this very aggregated level, the distributions for both income and employment by industry are very similar for the two counties. Commercial fisheries would be included under the category "Agricultural Services, Forestry, Fishing and Other". In 1997, this category accounted for only 2.2% of income by place of work in Santa Barbara County and only 2.3% in Ventura County. This serves as a first step upper bound on the proportion of income by place of work for the direct impacts of the harvesting portion (not including multiplier impacts) of commercial fishing. Other direct impacts of commercial fishing would include some portion of Wholesale Trade (e.g., fish houses and buyers) and some portion of Manufacturing (fish processing).

The category "Mining" includes oil and gas extraction and production activities. In 1997, this category accounted for only 1.2% of income by place of work in both Santa Barbara and Ventura counties. This estimate serves as a first step upper bound on the proportion of income by place of work for the direct impacts of the extraction and production portion of offshore oil and gas activities. Other direct impacts of oil and gas extraction and production activities would include some portion of Construction and some portion of Transportation, Communication and Public Utilities (e.g., pipelines, tankers, port and towing).

The Retail Trade and Services sectors are where the direct impacts of tourism/recreation would be included. However, these categories are too broad to yield any useful bounds for estimation of the direct impacts for tourism/recreation. The accounts, as stated above, were simply not designed for this purpose. In any case, the first step of linking the three natural resource use activities to the economy yielded only limited insights.

A.11.





Income and Employment: Step 2 Additional Disaggregation. The accounts reviewed above are what are called two-digit SIC (Standard Industrial Classification) level of aggregations. The SIC system of accounting can actually go down to four and six digit levels, which contain more specificity about the activity. However, because of nondisclosure rules to protect the privacy of business information, the four digit level is the best available for large counties and even here there are many categories for which information is not reported due to nondisclosure. In this step, we explore how much detail we can glean about the three sectors that are our primary interest. Only income is reported at the lower levels of disaggregation.

Commercial Fishing Industry. In 1997, fishing income was a little over \$4.8 million in Santa Barbara County and over \$5.9 million in Ventura County. This represents less than one percent of the incomes by place of work in both counties (0.07% in Santa Barbara and 0.05% in Ventura). Again, this would be the income received by harvesters or commercial fishermen including crews and proprietors of the harvesting operations. It would not include buyers and fish houses or processors of commercial fish products.

Table 7. Direct Income to Commercial Fishing Harvesting Sector: Santa Barbara And Ventura Counties 1991 – 1997

Year	Santa Barbara County (000s \$)	Ventura County (000s \$)	Santa Barbara County (000s 1999 \$)	Ventura County (000s 1999 \$)
1991	3,520	3,010	4,306	3,682
1992	2,912	3,105	3,458	3,687
1993	2,618	3,644	3,018	4,201
1994	3,384	3,895	3,804	4,379
1995	5,194	6,618	5,678	7,235
1996	4,708	5,731	4,999	6,085
1997	4,811	5,937	4,994	6,163

Sources: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System (http://www.bea.doc.gov) and University of Virginia Library (http://fisher.lib.virginia.edu).

References

Bell, Frederick W., Bonn, Mark A. and Leeworthy, Vernon R. 1998. Economic Impact and Importance of Artificial Reefs in Northwest Florida. Florida State University, Department of Economics and Department of Hospitality Services, Tallahassee, Florida and National Oceanic and Atmospheric Administration, National Ocean Service, Special Projects Office, Silver Spring, Maryland. Under contract to Office of Fisheries Management and Assistance Service, Florida Department of Environmental Protection, contract Number MR235. Tallahassee, FL, December 1998.

California Employment Development Department. http://www.calmis.cahwnet.gov.

California Environmental Resources Evaluation System. http://ceres.ca.gov.

California Department of Finance. http://www.dof.ca.gov.

California Department of Fish and Game. Commercial Fisheries Data by Species, Year and Block. Personal communications, Joann Eres (562) 590-5141, e-mail: jeres@dfg.ca.gov and Jana Robertson (562) 590-5148, e-mail: jroberts@dfg.ca.gov. Marine Fisheries Statistical Unit, 330 Golden Shore, #50, Long Beach, CA 90802.

California Ocean resources Management Program. http://ceres.ca.gov/cra/ocean.

California Offshore Oil and Gas Energy Resources Study (COOGER): Development Scenarios and Onshore Physical Infrastructure in the Tri-County area of San Luis Obispo, Santa Barbara and Ventura. U.S. Department of the Interior, Minerals Management Service, Pacific OCS Region. OCS Study MMS 99-0043, January 26, 2000 (CD-ROM).

California Seafood Council. http://www.ca-seafood.org.

California Trade and Commerce Agency. http://commerce.ca.gov/index.html.

Hanemann, W.M., Wegge, T.C. and Strand I.E. 1991. Development and Application of a Predictive Model to Analyze the Economic Effects of Species Availability. National Marine Fisheries Service, Southwest Region. Administrative Report SWR-89-02. Terminal Island, California.

Kritzer, Jacob P., Foran, Tira and Fujita, Rodney M. 1999. An Economic Overview of Santa Barbara and Ventura Counties and their Marine Resource-Based Industries: A preliminary descriptive report to aid Socio-economic impact assessment of the proposed Channel Islands Marine Reserve Network. Environmental Defense, Oakland, California.

McWasiams, Bruce, and Goldman, George. 1994. *Commercial and Recreational Fishing in California: Their Impact on the State Economy*. Department of Agricultural and Resource Economics and College of Natural Resources, Division of Agriculture and Natural Resources, University of California, Berkeley, California. Publication CNR001, October 1994.

Molotch, Harvey and Freudenburg, Wasiam. 1996. Santa Barbara County: Two Paths. Ocean and Coastal Policy Center, Marine Science Institute, University of Santa Barbara, Santa Barbara, California. Under contract to U.S. Department of the Interior, Minerals Management Service, Pacific OCS Region, Camarillo, California. Contract Number 14-35-0001-30663, OCS Study MMS 96-0036. July 1996.

Moore, C.J. 1994. Planning for Ecotourism: Recreational Scuba Diving within the Channel Islands National Marine Sanctuary. Masters Thesis, University of California, Berkeley, California.

National Marine Fisheries Service (NMFS). 1980. Survey of Partyboat Passengers to Summarize and Analyze Recreational Demand for Partyboat Fishing in California. Administrative Report No. LJ-80-14C. Prepared by the Center for Natural Areas under contract No. 03-7-208-35265.

A.14.

- National Marine Fisheries Service, Marine Recreational Fisheries Statistics Survey (MRFSS). http://www.st.nmfs.gov/st1.
- National Marine Fisheries Service, Marine Recreational Fisheries Statistics Survey (MRFSS) and Recreational Fisheries Information Network (RecFIN): Pacific States Marine Recreational Fisheries Monitoring. Geographic Information System (GIS). http://www.psmfc.org/recfin/forms/gisdata.html
- Pacific Fisheries Management Council. 1999. Community Description Booklet, Appendix B, Port Revenue and Income Impact Tables.
- Pacific States marine Fisheries Commission, PacFin Data. http://www.psmfc.org/pacfin/woc.htm.
- Paulsen, Krista, Molotch, Harvey and Freudenburg, Wasiam. 1996. Ventura County: Oil, Fruit, Commune, and Commute. Ocean and Coastal Policy Center, Marine Science Institute, University of Santa Barbara, Santa Barbara, California. Under contract to U.S. Department of the Interior, Minerals Management Service, Pacific OCS Region, Camarillo, California. Contract Number 14-35-0001-30663, OCS Study MMS 96-0035. July 1996.
- Reynolds, J.A. 1991. Commercial, Recreational Uses and Economic Benefits of the Channel Islands National Marine Sanctuary. California Sea Grant Report. Santa Barbara, California.
- Rowe, R.D., Morey, E.R. and Ross, A.D. 1985. Valuing Marine Recreational Fishing on the Pacific Coast. Energy and Resource Consultants, Inc. under contract to National Marine Fisheries Service contract NA83ABC00205.
- Santa Barbara Conference & Visitors Bureau and Film Commission. 1999. 1999 Santa Barbara County Visitor Survey. Santa Barbara, California.
- Thomson, C. J. and Crooke, S. J. 1991. *Results of the Southern California Sportfish Economic Survey*. NOAA Technical Memorandum NMFS. NOAA-TM-NMFS-SWFSC-164. La Jolla, California.
- UCSB Economic Forecast Project. 1999. The 1999 Santa Barbara County Economic Outlook. Institutional Advancement, University of California, Santa Barbara, California. Volume 16, April 1999.
- UCSB Economic Forecast Project. 1999. The 1999 Ventura County Economic Outlook. Institutional Advancement, University of California, Santa Barbara, California. Volume 6, February 1999.
- University of Virginia Library. http://fisher.lib.virginia.edu.
- U.S. Department of Commerce, Census Bureau. http://www.census.gov.
- U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economic Information System. http://www.bea.doc.gov.
- U.S. Department of the Interior, Fish and Wildlife Service. 1993. 1991 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. Washington, D.C.
- U.S. Department of the Interior, Fish and Wildlife Service. 1998. 1996 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation. Washington, D.C.
- U.S. Department of Labor, Bureau of Labor Statistics. http://stats.bls.gov.
- Wegge, T.C., Hanemann, W.M. and Strand, I.E. 1983. *An Economic Assessment of Marine Recreational Fishing in Southern California*. NOAA Technical Memorandum. Saltonstall-Kennedy Act Cooperative Agreement No. 83-ABH-00063.

A.15.

Wine, V. and Hoban T. 1976. *Southern California Independent Sportfishing Survey*. California Department of Fish and Game, Long Beach, California.

A.16.

APPENDIX TABLES AND SOURCES

Table A.1.	1990 Census of Intercounty Commuters for Santa Barbara and Ventura Counties.	33
	Source: U.S. Department of Commerce, Bureau of the Census	
	(http://www.census.gov/) and University of Virginia Library,	
	(http://fisher.lib.virginia.edu).	
Table A.2.	Average Earnings Per Job, Average Wages & Salaries and Average	
	Nonfarm Proprietors Income for U.S., California, Santa Barbara	
	and Ventura Counties.	34
	Source: U.S. Department of Commerce, Bureau of Economic Analysis,	
	Regional Economic Information System (http://www.bea.doc.gov) and	
	University of Virginia Library (http://fisher.lib.virginia.edu).	
Table A.3.	Personal Income by Industry for California, Santa Barbara and Ventura	
	County: Comparisons 1990, 1994 and 1997	35
	Source: U.S. Department of Commerce, Bureau of Economic Analysis,	
	Regional Economic Information System (http://www.bea.doc.gov) and	
	University of Virginia Library (http://fisher.lib.virginia.edu).	
Table A.4.	Employment by Industry for California, Santa Barbara and Ventura	
	Counties: Comparisons 1994 and 1997	36
	Source: U.S. Department of Commerce, Bureau of Economic Analysis,	
	Regional Economic Information System (http://www.bea.doc.gov) and	
	University of Virginia Library (http://fisher.lib.virginia.edu).	
Table A.5.		
	Generated (000's \$)	37
	Source: Pacific Fisheries Management Council, Community Description	
	Booklet, Appendix B, Port Revenue and Income Impact Tables.	
Table A.6.	Ventura County Ports – Ex Vessel Value and Total Income Generated	20
	(000's \$)	38
	Source: Pacific Fisheries Management Council, Community Description	
T-1-1- A 7	Booklet, Appendix B, Port Revenue and Income Impact Tables.	
Table A.7.	Estimated Economic Impact of Charter/Party Boat Fishing 1997, Marine Reserve Study Area	20
	Source: U.S. Department of Commerce, Bureau of the Census	39
	(http://www.census.gov/) and Wegge et. al. (1983) (for a complete	
	citation see the "References" section).	
Table A.8.	Estimated Economic Impact of Private Boat Fishing 1997, Marine	
Table A.o.	Reserve Study Area	40
	Source: U.S. Department of Commerce, Bureau of the Census	40
	(http://www.census.gov/) and Wegge et. al. (1983).	
Table A 9	Estimated Economic Impact of Charter/Party Boat Fishing 1997,	
Table 11.7.	Boundary Expansion Study Area	41
	Source: U.S. Department of Commerce, Bureau of the Census	
	(http://www.census.gov/) and Wegge et. al. (1983).	
Table A.10.		
140101111101	Boundary Expansion Study Area	42
	Source: U.S. Department of Commerce, Bureau of the Census	
	(http://www.census.gov/) and Wegge et. al. (1983).	
Table A.11.	Estimated Economic Impact of Charter Boat Diving 1997, Marine	
	Reserve Study Area	43
	Source: U.S. Department of Commerce, Bureau of the Census	
	(http://www.census.gov/), Bell et. al. (1998), Santa Barbara Conference	
	& Visitors Bureau and Film Commission (1999) and Moore (1994)	
	(for complete citations see the "References" section).	

APPENDIX TABLES AND SOURCES (Continued)

Table A.12.	Estimated Economic Impact of Private Boat Diving 1997, Marine Reserve	
	Study Area	44
	Source: U.S. Department of Commerce, Bureau of the Census	
	(http://www.census.gov/), Bell et. al. (1998), Santa Barbara Conference	
	& Visitors Bureau and Film Commission (1999) and Moore (1994).	
Table A.13.	Estimated Economic Impact of Charter Boat Diving 1997, Boundary	
	Expansion Study Area	45
	Source: U.S. Department of Commerce, Bureau of the Census	
	(http://www.census.gov/), Bell et. al. (1998), Santa Barbara Conference	
	& Visitors Bureau and Film Commission (1999) and Moore (1994).	
Table A.14.	Estimated Economic Impact of Private Boat Diving 1997, Boundary	
	Expansion Study Area	46
	Source: U.S. Department of Commerce, Bureau of the Census	
	(http://www.census.gov/), Bell et. al. (1998), Santa Barbara Conference	
	& Visitors Bureau and Film Commission (1999) and Moore (1994).	
Table A.15.	Species Included in Each Species Group for Commercial Fisheries	
	Analysis	47
	Source: California Department of Fish and Game.	
Table A.16.	Commercial Fisheries – Top 10 Species Based on Ex Vessel Value:	
	Marine Reserve Study Area (MRSA)	53
	Source: California Department of Fish and Game.	
Table A.17.	Commercial Fisheries – Top 10 Species Based on Ex Vessel Value:	
	Boundary Expansion Study Area (BESA)	54
	Source: California Department of Fish and Game.	
Table A.18.	Commercial Fisheries – Top 10 Species Based on Ex Vessel Value: All	
	Study Areas	55
	Source: California Department of Fish and Game.	

Table A.1 1990 Census of Intercounty Commuters for Santa Barbara and Ventura Counties

Santa Barbara County			
Total Workers in County			183,655
Total Working Residents of County			179,258
Net Flow of Workers to County			4,397
Residents that Work in the County			169,022
Residents that Commute to Work Outside County			10,236
Surrounding Counties:		7,978	
Ventura	2,433		
San Luis Obispo	3,584		
Kern	186		
Los Angeles	1,775		
Other Counties:		1,729	
Other States:		481	
Other Countries:		48	
Non Residents that Work Inside County			14,633
Surrounding Counties:		12,546	- 1,000
Ventura	5,594	12,0 .0	
San Luis Obispo	5,478		
Kern	207		
Los Angeles	1,267		
Other Counties:	1,207	1,390	
ouler countries.		1,570	
Ventura County			
Total Workers in County			299,794
Total Working Residents of County			355,186
Net Flow of Workers to County			-55,392
Residents that Work in the County			250,348
Residents that Commute to Work Outside County			84,838
Surrounding Counties:		78,208	
Santa Barbara	5,594		
Los Angeles	72,353		
Kern	261		
Other Counties:		5,513	
Other States:		912	
Other Countries:		205	
Non Residents that Work Inside County			29,446
Surrounding Counties:		26,354	, -
Santa Barbara	2,433	- ,	
Los Angeles	23,635		
Kern	286		
Other Counties:	_00	2,873	
Callet Countries.		2,073	

A.19.

Table A.2. Average Earnings Per Job, Average Wages & Salaries and Average Nonfarm Proprietors Income for U.S., California, Santa Barbara and Ventura Counties

	U.S.	California	Santa Barbara County	Ventura County
Avg. Earnings Per Job (\$)				
1990	24,531	27,683	25,752	25,381
1994	28,171	30,952	27,036	28,032
1997	30,842	33,744	29,024	30,685
Avg. Wage & Salary (\$)				
1990	23,430	26,239	23,632	24,099
1994	26,528	29,342	24,973	26,608
1997	29,814	32,971	27,562	30,285
Avg. Nonfarm Proprietor's Income (\$)				
1990	17,055	19,815	21,551	16,060
1994	20,098	21,804	21,925	19,002
1997	21,508	23,430	22,993	20,379
Avg. Earnings Per Job (1999 \$)				
1990	31,154	35,157	32,705	32,234
1994	31,552	34,666	30,280	31,396
1997	32,076	35,094	30,185	31,912
Avg. Wage & Salary (1999 \$)				
1990	29,756	33,324	30,013	30,606
1994	29,711	32,863	27,970	29,801
1997	31,007	34,290	28,664	31,496
Avg. Nonfarm Proprietor's Income (1999 \$)				
1990	21,660	25,165	27,370	20,396
1994	22,510	24,420	24,556	21,282
1997	22,368	24,367	23,913	21,194

A.20.

Table A.3. Personal Income by Industry for California, Santa Barbara and Ventura County: Comparisons 1990, 1994 and 1997

		California		Santa	Santa Barbara County	onnty	e>	Ventura County	>
Industry	1990	1994	1997	1990	1994	1997	1990	1994	1997
Farm	7,005,842	6,812,919	7,507,183	237,461	202,473	291,652	450,821	393,867	402,932
Agricultural Services, Forestry,	4,683,875	5,465,048	6,314,573	112,051	152,050	146,343	155,989	216,680	259,297
Tish and other	0.00	9	Š		1.00	0	010 - 77	000	0 0 0
Mining	2,169,653	2,098,118		56,147	7,593	80,203	114 5/6	136,206	134 263
Construction	30,337,414	25,983,262		363,000	301,431	7/988	694 911	534,118	719340
Manufacturing Transportation and Public Hilities	27 172 88N	32 525 047	38 288 896	303,162 192,556	225 547	261270	467 074	578 759	547,416
Wholesale trade	29,863,793	31,579,036		217.708	243,225	273804	419,433	496,587	557,688
Retail trade	44,960,799	48,542,063		538,393	601,777	686,103	862,664	972,086	1,089,610
Finance, Insurance and Real estate	32,857,887	40,950,659		287,244	343,822	390,644	443,763	590,870	697,718
Services	137,928,814	160,540,316		1,792,528	1,938,617	2227,804	2,102,144	2,871,550	3,352,905
Government	71,523,659	81,670,326		866,933	966,478	1,124,909	480	1,696,909	1,834,401
Total	469,355,580	517,993,813	1000	5,567,203	5,887,111	6,743,656	8,378,763	9,799,145	11,138,553
Farm	1.5	1.3	1.2	4.3	3.4	4.3	5.4	ব	3.6
Agricultural Services, Forestry,	-	Ξ.	~	2	2.6	2.2	<u>0</u> .	2.2	2.3
fish and other				0			0		0
Mining	0.5	0.4	0.4	•	12	1.2	1.4	4.	1.2
Construction	6.5	2	5.1	6.5	5.1	5.8	8.3	6 5	6.5
Manufacturing	17.2	15.8	15.9	16.2	14.3	12.9	14.2	12.9	13.9
Transportation and Public Utilities	5.8	6,3	6.3	3.5	3.8	3.9	5.6	5.4	4.9
Wholesale trade	6.4	6.1	6.2	3.9	4	4.1	Ŋ	5.1	Ŋ
Retail trade	9.6	4.6	0	9.7	10.2	10.2	10.3	6.6	9.8
Finance, Insurance and Real estate	7	7.9	8.2	5.2	5.8	5.8	5.3	9	6.3
Services	29.4	31	32.3	32.2	32.9	8	25.1	29.3	30.1
Government	15.2	15.8	14.5	15.6	16.4	16.7	17.7	17.3	16.5
Total	100	1	100	100	100	100	100	400	100

Table A.4. Employment by Industry for California, Santa Barbara and Ventura Counties: Comparisons: 1994 and 1997 (000's \$ and Percent)

Farm Agricultural Services, forestry, fish and other Mining Construction Manufacturing Transportation, Communication and Public Utilities Wholesale trade Retail trade Tinance, Insurance and Real Estate Retrices	7,814 9,959 1,514 9,136 18,898 6,265 6,416 37,375	10,095 8,636 1,421 11,077 19,000 6,971	10,313 13,149 2,601 17,736 32,778	2,121
Agricultural Services, forestry, fish and other Mining Construction Manufacturing Transportation, Communication and Public Utilities Wholesale trade Retail trade Tinance, Insurance and Real Estate	9,959 1,514 9,136 18,898 6,265 6,416	8,636 1,421 11,077 19,000	13,149 2,601 17,736	13,051 2,121 19,335
and other Mining Construction Manufacturing Transportation, Communication and Public Utilities Wholesale trade Retail trade Transportation Retail trade Transportation Tr	1,514 9,136 18,898 6,265 6,416	1,421 11,077 19,000	2,601 17,736	2,121
Construction Manufacturing Transportation, Communication and Public Utilities Wholesale trade Retail trade Tinance, Insurance and Real Estate	1,514 9,136 18,898 6,265 6,416	1,421 11,077 19,000	2,601 17,736	2,121
Construction Manufacturing Transportation, Communication and Public Utilities Wholesale trade Retail trade Tinance, Insurance and Real Estate	9,136 18,898 6,265 6,416	11,077 19,000	17,736	19,335
Fransportation, Communication and Public Utilities Wholesale trade Retail trade Finance, Insurance and Real Estate	6,265 6,416	,		
Public Utilities Wholesale trade Retail trade Finance, Insurance and Real Estate	6,265 6,416	6,971		35,246
Vholesale trade Retail trade Finance, Insurance and Real Estate	6,416	6,971		
Retail trade Finance, Insurance and Real Estate			13,025	12,428
inance, Insurance and Real Estate	37.375	6,369	14,076	15,168
·		39,606	57,354	61,308
ervices	15,791	16,564	26,463	28,003
	71,802	78,550	113,069	117,943
Sovernment	32,380	34,062	49,008	47,895
Federal, Civilian	3,452	3,493	11,053	9,106
Military	4,302	4,348	7,766	7,080
State and Local	24,626	26,221	30,189	31,709
State	7,152	7,449	3,139	2,409
Local	17,474	18,772	27,050	29,219
Cotal Cotal	217,750	232,351	349,572	362,997
Wage and Salary	170,477	180,542	272,117	279,307
Proprietors	47,273	51,809	77,455	83,690
arm	3.6	4.3	3.0	2.9
Agricultural Services, forestry, fish				
and other	4.6	3.7	3.8	3.6
Mining	0.7	0.6	0.7	0.6
Construction	4.2	4.8	5.1	5.3
Manufacturing	8.7	8.2	9.4	9.7
ransportation, Communication and				
Public Utilities	2.9	3.0	3.7	3.4
Vholesale trade	2.9	2.7	4.0	4.2
Retail trade	17.2	17.0	16.4	16.9
Finance, Insurance and Real Estate	7.3	7.1	7.6	7.7
ervices	33.0	33.8	32.3	32.5
Government	14.9	14.7	14.0	13.2
Federal, Civilian	1.6	1.5	3.2	2.5
Military	2.0	1.9	2.2	2.0
State and Local	11.3	11.3	8.6	8.7
State	3.3	3.2	0.9	0.7
Local	8.0	8.1	7.7	8.0
`otal	100.0	100.0	100.0	100.0
Wage and Salary Proprietors	78.3 21.7	77.7 22.3	77.8 22.2	76.9 23.1

A.22.

Appendix A

Table A.5. Santa Barbara County Ports - Ex Vessel Value and Total Income Generated (000's\$)

	Shrimp & Spiny Sea Market Other Prawn Lobster Cucumbers Squid Crab 234 305 b/ 0 240 492 b/ 0	Spiny Sea Market Other Lobster Cucumbers Squid Crab 305 b/ 0 492 b/ 0	Sea Market Other Cucumbers Squid Crab b/ 0	Market Other Squid Crab // 0	Other Crab	₩ ₩	Ground- fish 82 35		77	Total Ex Vessel 5,691 8,764
451 137 505 239 456 552 581 413 618 273 729 254		49.2 b/ 679 15 76.3 2.1	15 é		J — 4	~	3 % t	780 197	33%	
505 239 107 456 552 151 581 413 154 618 273 166 729 254 219 736 320 171	154 773 35	773 35	35			Œέ	451	236	184	13,58
456 552 151 581 413 154 618 273 166 729 254 219 736 320 171	180 652 57	652 57	57			Ø,	505	239	107	14,27
581 413 154 618 273 166 729 254 219 736 320 171	379 880 54	880 54	54		_	23	456	552	151	13,804
618 273 166 729 254 219 736 320 171	400 1,200 1	1,200	-	27		2	581	413	154	10,217
729 254 219 736 320 171	777 933 27	933 27	27		5	524	618	273	166	9,953
736 320 171	835 1,529 47	1,529 47	47		$^{\circ}$	354	729	254	219	8,852
	847 966 53	966 53	53			24	736	320	171	6,726
	007 1 606	1 406		03		ç	220	000	21.5	27.476
0000	17,739 88/ 1,096 193	1,096 2,301		25			1,558 615	828 544	7 P	21,470
1,338 828 313 1,615 544 319	1,914 1,793 94	1,793 94	94				1,741	327	348	21,861
1,338 828 313 1,615 544 319 1,741 327 348	2,939 176	2,939 176	176				2,043	305	462	19,458
1,338 828 313 1,615 544 319 1,741 327 348 2,043 305 462	1,944 1,881 197	1,881 197	197				2,068	385	365	13,306
53 1,338 828 313 27,476 9 1,615 544 319 20,724 92 1,741 327 348 21,861 54 2,043 305 462 19,458 74 2,068 385 365 13,306	Ex Vessel Value									
1,338 828 313 1,615 544 319 1,741 327 348 2,043 305 462 2,068 385 365	1.9 3.6	1.9 3.6	1.9 3.6 4	3.6	ব	∞:	2.9	1.5	2.1	2.0
1,338 828 313 1,615 544 319 1,741 327 348 2,043 305 462 2,068 385 365 2.9 1.5 2.1	2.6 1.9 3.3	1.9 3.3			~	1.5	2.8	1.3	2.1	2.0
1,338 828 313 1,615 544 319 1,741 327 348 2,043 305 462 2,068 385 365 2,9 1.5 2.1 2.8 1.3 2.1	2.5 1.9 3.5	1.9 3.5	3.5		•	8.4	2.8	1.2	2.1	2.2
1,338 828 313 1,615 544 319 1,741 327 348 2,043 305 462 2,068 385 365 2,9 1,5 2.1 2.8 1,3 2.1 2.8 1,2 2.1	2.3 1.9 3.7	1.9 3.7	3.7			5.0	2.8	1.2	2.1	2.2
1,338 828 313 1,615 544 319 1,741 327 348 2,043 305 462 2,068 385 365 2,9 1,5 2.1 2.8 1,3 2.1 2.8 1,2 2.1 2.8 1,2 2.1	2.3 1.9 3.7	3.7	3.7	3.7		3.1	2.8	1.2	2.1	2.0

Appendix A

Table A.6. Vertura County Ports - Ex V essel Value and Total Income Generated (000's \$)

		Sommo &	Spring	pag	Taymon	Culta	dimo io		Camionna	Tom
Year	Urchins	Prawn	Lobster	Cucumbers	Squid	Crab	fish		Hailbut	Ex Vessel
1988	3,016		39(- 3,531		84	735	262	
198			49				92	1,266	292	
199			8				76	1,203	404	
199			456				128	1,267	471	
199			41	2 61			204	1,226	311	
1993			419	þ.			66	1,073	292	
199			28				62	561	326	
199			51.				57	835	354	
199			47				58	919	512	
199		_	77.	7 144			131	922	376	
199	8 1,785	1,441	45		5 1,510		202	570	395	7,801
Total Income										
199	00.00						184	895	672	
1995	5 11,344	1,54	986				163	1,385	733	90,168
199				1,081			170	1,460	1,070	
199			1,490				373	1,505	787	Mari
199				368			565	896	840	19,487
Income to Ex Ves	Ex Vessel V alue	lue								
199	4 2.0	2.0	1.0	3.	3 4.1		3.0	1.6	2.1	2.9
1995	5 2.0	2.1	1.9	. 3	1 4.2		2.9	1.7	2.1	3.3
199		2.0	1.5		3 3.6		2.9	1.6	2.1	n/a
199	7 2.0	2.0	1.5		7 4.5		2.8	1.6	2.1	3.6
199		2.0	2.0	Ŕ	3.2		200	1.6	2.1	2.5